

REMARKS

Upon entry of the Amendment, Claims 1 and 3-34 will be pending in the application.

Claim 1 is amended to incorporate the subject matter of Claim 2, now canceled. Claim 3 is amended based on the disclosure at page 6, line 18 in the application. No new matter is added.

Claim 4 is amended to depend on Claim 1 or Claim 3.

Claims 33 and 34 are amended to depend on any one of Claims 1, 3, and 5-6.

Entry of the Amendment along with reconsideration and review of the claims on the merits are respectfully requested.

Response to Claim Rejections - 35 U.S.C. §102 and §103

A. Claims 1-4, 33 and 34 are rejected under 35 U.S.C. §102(e) as assertedly anticipated by or under 35 U.S.C. §103(a) as obvious over Daido et al (US 6,291,106).

Applicants respectfully traverse this rejection.

Claim 1 is amended to incorporate the subject matter of Claim 2, now canceled.

Applicants submit that Daido merely teaches, as is seen from Example 1, a non-woven fabric sheet obtained by calendering a film formed with crystallized m-aramid short fibers and noncrystalline m-aramid continuous filaments as a binder.

Contrary to this, the present invention is directed to a porous film obtained by casting a dope of an m-aramid. Thus, the present invention differs from the art of Daido in the point that the present invention is directed to a homogeneous porous film composed of one polymer while Daido relates to a non-woven fabric sheet composed of two different materials of crystallized

and non-crystalline polymers and, in addition, of short fibers and continuous filaments. Further, the sheet of Daido having such a different configuration does not exhibit the properties that it retains at least 60% of its gas permeability after heat treatment at 350°C for 10 minutes and that it has a specific Young's modulus of 200-800 (kgf/mm²)/(g/cm³). Furthermore, the sheet of Daido cannot exhibit any specific cross-sectional pore laminar coefficient, since it has not pores in the sheet cross-section.

Therefore, the invention of Claims 1, 3-4, 33 and 34 are clearly distinguished from Daido.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejections citing Daido.

B. Claims 5 and 6 are rejected under 35 U.S.C. §103(a) as assertedly being unpatentable over Daido et al (US 6,291,106) in view of Shinohara et al (US 6,447,958).

Applicants respectfully traverse this rejection.

Applicants submit that Shinohara relates to a non-aqueous electrolyte battery separator comprising a heat-resistant nitrogen-containing aromatic polymer and a ceramic powder. The art of Shinohara differs from the present invention in the point that Shinohara states that a para-aramid is preferred and uses a ceramic powder. In fact, the aramid employed by Shinohara in the examples is a para-aramid, and there is no example employing a meta-aramid.

Contrary to this, in the present invention, an m-aramid is selected as the porous film material and an inorganic whisker which is an anisotropic fine linear crystal is selected as the

filler. But Shinohara is completely silent concerning the use of these materials.

Therefore, the invention of Claims 5 and 6 are clearly distinguished from the combination of Daido with Shinohara.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the obviousness rejection over the combination of Daido with Shinohara.

C. Claim 7 is rejected under 35 U.S.C. §103(a) as being unpatentable over Daido et al (US 6,291,106) in view of Shinohara et al (US 6,447,958) and further in view of Tsutsumi et al (US 5,571,875).

Applicants respectfully traverse this rejection.

Applicants submit that Tsutsumi discloses an injection molding resin composition comprising a combination of a heat resistant resin of polyimide and a reinforcing filler of a potassium titanate whisker which has a length of 5-50 μm and a diameter of 0.05-1.0 μm . However, Tsutsumi neither teaches nor suggests a combination of a heat resistant resin of m-aramid and a whisker, an m-aramid as a dope composition for casting and a whisker, that a molded product therefrom is a porous film, or that a whisker is useful as a reinforcing material for such a porous film.

Therefore, the invention of Claim 7 is clearly distinguished from the combination of Daido, Shinohara and Tsutsumi.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the obviousness rejection over the combination of Daido with Shinohara and Tsutsumi.

D. Claims 1-6, 33 and 34 are rejected under 35 U.S.C. §103(a) as assertedly being unpatentable over Shinohara et al (US 6,447,958) in view of Cieslak et al (US 5,002,843).

Applicants respectfully traverse this rejection.

Claim 1 is amended to incorporate the subject matter of Claim 2, now canceled.

Applicants submit that Cieslak discloses a separator composed of an m-aramid fiber mat, but does not describe that a porous film of an m-aramid is useful as a separator. Therefore, a technical concept that an m-aramid is equivalent to a p-aramid as a material for a porous film is not taught, even if the teaching of Cieslak that a separator of a p-aramid fiber mat is equivalent to a separator of an m-aramid fiber mat is combined with the teaching of Shinohara in that a p-aramid is preferable as a material for a porous film.

Therefore, the invention of Claims 1, 3-6, 33 and 34 are clearly distinguished from the combination of Shinohara with Cieslak.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the obviousness rejection over the combination of Shinohara with Cieslak.

E. Claim 7 is rejected under 35 U.S.C. §103(a) as assertedly being unpatentable over Shinohara et al (US 6,447,958) in view of Cieslak et al (US 5,002,843) and further in view of Tsutsumi et al (US 5,571,875).

Applicants respectfully traverse this rejection.

The present invention which is directed to a porous film composed of an m-aramid and an inorganic filler and having a specific porosity and a specific Young's modulus cannot be conceived from Shinohara which teaches that a p-aramid is preferable as a material for a porous film, from Cieslak which teaches that a p-aramid fiber is equivalent to an m-aramid fiber and from Tsutsumi which describes a combination of a heat resistant resin of polyimide and a reinforcing filler of a potassium titanate whisker.

Therefore, the invention of Claim 7 is clearly distinguished from the combination of Shinohara, Cieslak and Tsutsumi.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the obviousness rejection over the combination of Shinohara, Cieslak and Tsutsumi.

Conclusion

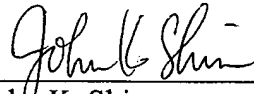
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No.: 10/776,184

Atty. Docket No.: Q79839

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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